ALBERTA TRANSPORTATION

TERMS OF REFERENCE

FOR ENVIRONMENTAL EVALUATION

June 2011

SCOPE OF ASSESSMENT

The TERMS OF REFERENCE FOR ENVIRONMENTAL EVALUATION are to be utilized for those projects that are not on the five year construction program and/or do not have federal *Canadian Environmental Assessment Act* (CEAA) triggers nor require provincial environmental approvals. The work requires that a desktop evaluation, supplemented by at least one field visit, be completed to the satisfaction of Alberta Transportation. The scope of the evaluation includes the environmental effects of the construction phase only.

Environmental Evaluations conducted during the planning phase must identify and sufficiently detail environmentally sensitive features, including but not limited to, fish bearing watercourses, wetlands and SARA species. This information will identify the need to conduct a thorough environmental assessment that meets CEAA requirements once the project is identified on the five year construction program.

It is important to note that the TERMS OF REFERENCE FOR ENVIRONMENTAL EVALUATION are not intended to satisfy *CEAA* requirements for environmental assessment. The ALBERTA TRANSPORTATION TERMS OF REFERENCE FOR ENVIRONMENTAL ASSESSSMENT should be utilized for those projects that have federal triggers under CEAA and are on the five year construction program.

The following format is to be specifically followed for the purposes of this work.

ENVIRONMENTAL EVALUATION REQUIREMENTS

PROJECT INFORMATION

Include the following:

- the nature of the project;
- the name and proposed location of the project;
- the name and address of the proponent including one or two contact persons; and
- the identification of potential federal/provincial involvement related to authorizations and approvals that may be required.
- site (right-of-way) location (UTM coordinates, geographic positioning, etc.);
- a map indicating the location of the project including the project site and the site layout of the main components of the project;
- details of the main components of the project, including any permanent and temporary structures;
- proximity to residential and other urban areas, protected areas, and Indian reserves;
- traffic forecasts, type of traffic and roadway standards.

STUDY AREA

The local study area for the project consists of a 300m wide corridor centered over the roadway center-line (150m each side or for interchanges 150m radius) that will capture direct and indirect project effects. In some instances there may be a need to expand the study area. This will be considered within the scope of the work to be performed.

METHODOLOGY

- Describe the effects of the projects environmental impacts considering Direction, Extent, Magnitude, Duration, Reversibility, Confidence, and Frequency for each VEC. The table below is to be utilized.

VEC	Potential Project Effect	Mitigation Measures	Effect Characteristic	Residual Effect
e.g. Wetlands	Decrease in wetland habitat	Compensation for all disturbed wetlands as required to satisfy the Provincial *Water Act* and achieve no-net-loss of function.	• Direction • Extent • Magnitude • Duration • Confidence • Reversibility • Frequency	• Positive/Negative • Local/Subregional/ Regional • Negligible/Minor/ Moderate/ Major • Short-term/Long-term • Predictable/Uncertain • Reversible/ Not Reversible • Isolated/Rare/Frequent

- For each VEC describe all assumptions made and any data deficiencies and discuss the work completed to fulfil the knowledge deficiencies.

VALUED ECOSYSTEM COMPONENTS

The following VEC's are required to be assessed within the evaluation.

NOTE: not all projects will require the assessment of all VEC's listed below however it is expected that in the proposal each of the VEC's will be addressed to the appropriate extent including Not Applicable (N/A) or identified as a deletable item in the resource budget. Additional VEC's may be proposed by the Consultant in the proposal.

VEGETATION

Existing Conditions

- Describe the general vegetation cover types in the study area.
- Describe the methodology used to collect data.

Impacts

- Describe the clearing requirements (quantify area to be cleared/vegetation types).

- Discuss how the removal of vegetation for construction would affect vegetative communities in the project area.
- Discuss how operations of the project would affect vegetative communities including potential changes in species composition.

Mitigation Measures

- Discuss the standard mitigation measures, including reclamation activities, to be implemented to offset the impacts caused by the project. All information related to mitigation measures must be entered into the table identified in the Methodology section of this Terms Of Reference.

Regulatory Requirements

Describe the relationship between the project's activities and the various federal and provincial authorizations and approvals processes that may be invoked (e.g. SARA, the Provincial At Risk species, Weed Control Act, etc.).

WILDLIFE

Existing Conditions

- Characterize wildlife and wildlife habitat including a list of the status and abundance of Provincial At Risk and Federal SARA wildlife species known, or expected to occur during some portion of the year within the project area.
- Describe the methodology used to collect data.

Impacts

- Describe general impacts to wildlife habitat as a result of the project, including habitat corridor alteration.
- Discuss potential wildlife highway mortality.
- Discuss potential impacts to Provincial At Risk and Federal SARA species.

Mitigation Measures

- Discuss the standard mitigation measures to be implemented to offset the impacts caused by the project. All information related to mitigation measures must be entered into the table identified in the Methodology section of this Terms Of Reference.

Regulatory Requirements

- Describe the relationship between the project's activities and the various federal and provincial authorizations and approvals processes that may be invoked (e.g. Migratory Birds Convention Act, SARA, the Provincial At Risk species, etc.).

WETLANDS

Existing Conditions

- Document the location and size of wetlands.
- Identify wetland type (where applicable use Stuart and Kantrud).

- Identify condition of upland zones surrounding the wetland and list any activity occurring in the upland zone.
- Describe the methodology used to collect data.

Impacts
- Discuss how wetlands will be affected by the project during the construction phase.

Mitigation Measures
- Discuss the standard mitigation measures to be implemented to offset the impacts caused by the project. All information related to mitigation measures must be entered into the table identified in the Methodology section of this Terms Of Reference.

Regulatory Requirements
- Describe the relationship between the project's activities and the various federal and provincial authorizations and approvals processes that may be invoked (e.g. SARA, the Provincial At Risk species, Draft Provincial Wetland Policy, Federal Policy on Wetland Conservation, Alberta Water Act, etc.).

FISHERIES

Existing Conditions
- Identify potential fish and fish habitat.
- Identify federal/provincial rare, endangered, or threatened fish species.
- Describe the methodology used to collect data.

Impacts
- Characterize the impacts to fish and fish habitat resources during the construction phase.

Mitigation Measures
- Discuss the standard mitigation measures to be implemented to offset the impacts caused by the project. All information related to mitigation measures must be entered into the table identified in the Methodology section of this Terms Of Reference.

Regulatory Requirements
- Describe the relationship between the project's activities and the various federal and provincial authorizations and approvals processes that may be invoked.

HYDROLOGY

Existing Conditions
- Characterize surface water resources (quantity and flow patterns).
- Describe drainage characteristics for the project area.
- Describe the methodology used to collect data.

Impacts
- Describe the potential impacts to surface water resources as a result of the project.

Mitigation Measures
- Discuss the mitigation measures to be implemented to offset the impacts caused by the project. All information related to mitigation measures must be entered into the table identified in the Methodology section of this Terms Of Reference.

Regulatory Requirements
- Describe the relationship between the project's activities and the various federal and provincial authorizations and approvals processes that may be invoked.

NAVIGATION

Existing Conditions
- Characterize navigation within the study area. These efforts shall include referencing INFTRA navigation maps and the Navigable Waters Protection Act.

Regulatory Requirements
- Describe the relationship between the project's activities and the various federal and provincial authorizations and approvals processes that may be invoked (e.g. NWPA).

CULTURAL RESOURCES

Existing Conditions
- Complete the Statement of Justification for Historical Resources Act Requirements Form by a qualified archaeologist in order to proceed with a HRIA or to secure regulatory clearance.

Regulatory Requirements
- Describe the relationship between the project's activities and the various federal and provincial authorizations and approvals processes that may be invoked (e.g. the *Alberta Historical Resources Act)*.

REFERENCES

The EA will include a list of references used at the end of the report.